

BORDER REGION STRUCTURES

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ABSTRACT

The aim of this analysis is to follow theoretically the way, how a border area becomes an integrated, well-functioning border zone. The definitions and classifications lead up to the concepts of cross-border space generally constructed in the 1990's, in the works of Ratti, Renard or Sanguin. The spatial organization of cross-border regions is generally represented in schematic maps, including more or less objects (border line, rivers, roads, railroads, canals, cities and other settlements, etc.) and flows (capital, labor-power, tourists, migration, etc.). Maps for different border types and levels of cross-border cooperation use different elements and seem not comparable. We summarize these different maps and suggest some modifications and extensions, offering a more general tool for the theoretical analysis. The IT age partially changed the channels of communication; thereby the update of the models is current.

1. INTRODUCTION

More and more researchers are interested in borders and grouping them in different ways. Natural borders can be river, mountain, sea or green borders; and the former ones compose obstacles for moving of people and indirectly of commodities. In the European Union, 55% of the land (i.e. not sea) borders are green – without natural obstacle – borders (ESPON 1.1.3. Final Report, 2006), but these borders are also loaded with dissimilarities of ethnicity and as a result of the separation (centrifugal) forces, significant economic disparities are observed (Kotosz, 2004). Instead of looking from a European perspective, we zoom on the strict border area and cross-border regions, and try to analyze space structures at regional level.

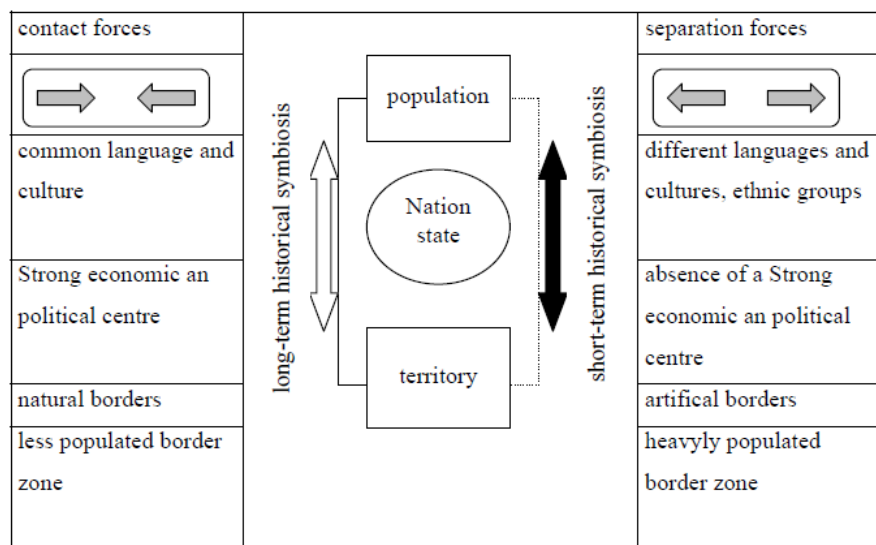


Fig. 1. The Hartshorne-Haggett model

Source: Cséfalvay, 1994.

In any analysis of the border regions, one of the keywords is the openness of the border. A special summary of the effects is the Hartshorne-Haggett model. By the Hartshorne adaptation of the Haggett model (Haggett, 1983); in the border region contact (centripetal) and separation (centrifugal) forces act (often simultaneously). Based on

common history, culture, and language, the border areas have more chance to become integrated and create an attractive border region. If the symbiosis of the two population groups is short on both side of the border (without common language, culture), and there is a lack of strong economic center, the territory and the population is not in harmony, the creation a functional border region is quite impossible. In real life, these factors play a role in the creation of a (cross)border region.

As van Houton's figure shows the spatial cognition in the border region, the border has a crucial role in the cognition. The formal knowledge about the other side of the border is less, even if the media and knowledge via personal contacts give some fix points for the cognition (the role and weight of these types of communication has changed in the last decade). In the case of shopping and recreation the border may have a positive effect on the cognition; if quality differences are supposed, the spatial distribution of commerce is distorted. The spatial inequality of services can be explained by their non-traded characteristics. The border cut the personal contacts living on the other side of the border. If we are thinking about a whole border region, it is natural that the personal contacts decrease with the geographical distance, but without borders this decrease is continuous. (see Figure 2).

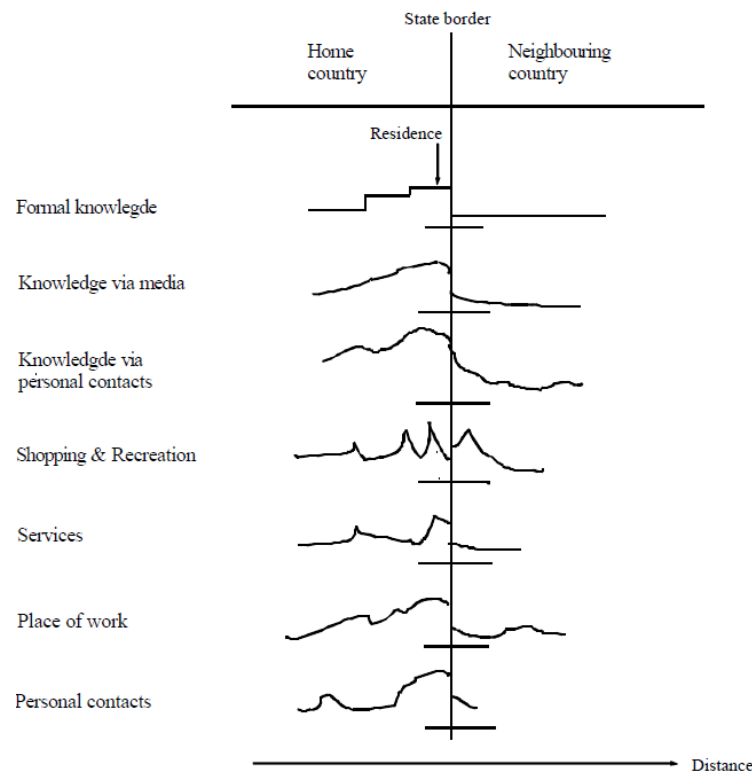


Fig. 2. Spatial cognition in a border region

Source: van Houton, 1998

2. MATERIAL AND METHODS

The paper is theoretical; we summarize the results of cross-border space mapping. The main focus is on the local and regional level, we use the method of schematic maps. We compare different levels of cross-border cooperation and its impacts on space structure resulting different structure of space.

3. RESULTS AND DISCUSSION

The most general schematic overview of cross-border relationships is the figure of Sanguin (see Figure 3). Sanguin underlines the different types of interactions present in the cross-border regional system.

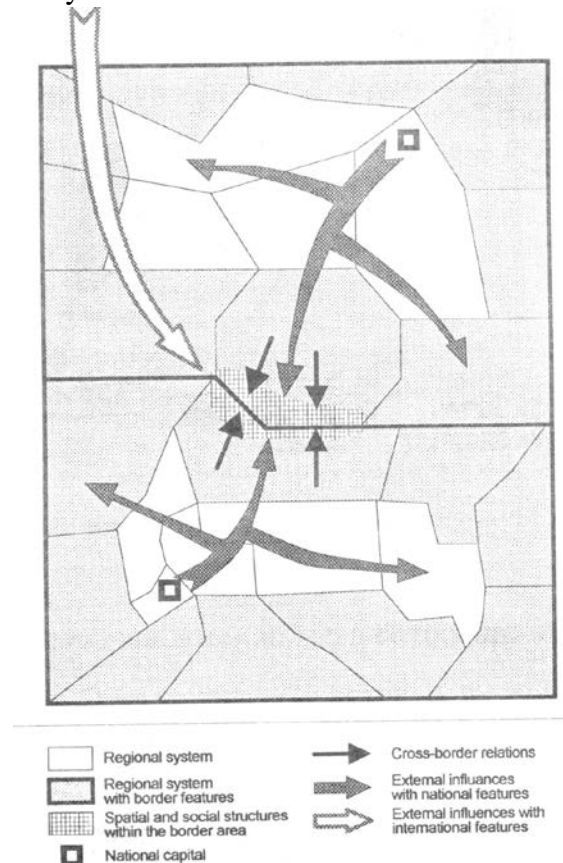


Fig. 3. Cross-border regional system with intranational and international interactions

Source: Sanguin, 1995

From his optic, three relations can be distinguished in the border area: the strictly cross-border relations, the external influences with national features and the external influences with international features. In his model, the accent is on forces towards the spatial and social structures within the border area. In some cases, the three different forces can have contradictory goals. The elements of this map are very general and except for the national capital, they are necessary units of such maps.

In the remaining part of the article, our focus will be on the analysis of Jean-Pierre Renard and Patrick Picouet. The French researchers modeled different levels of cross-border cooperation (or from the Hartshorne point of view: variously strong contact and separation forces).

In the first stage, we are at the level of dysfunction of cross-border cooperation with practically closed border (see Figure 4).

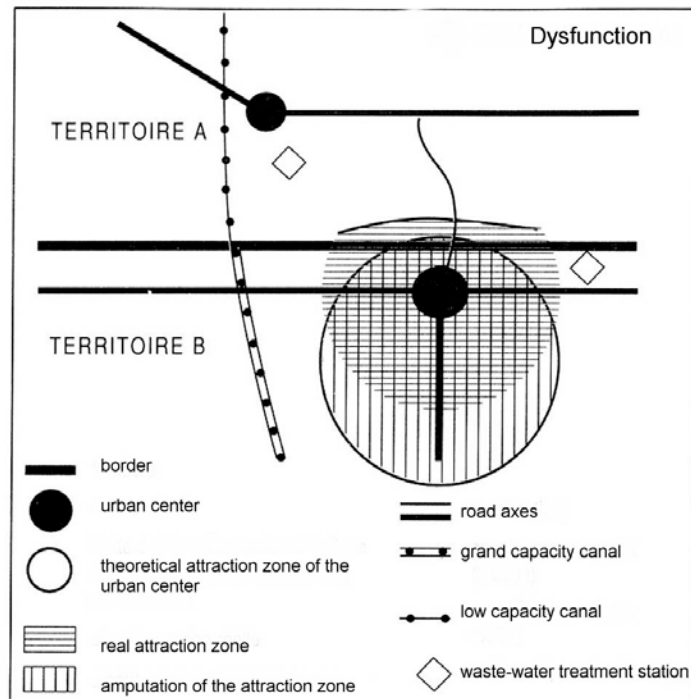


Fig. 4. Dysfunction of borders

Source: Renard-Picouet, 1993

In this case the border line *a priori* separates the territory A (less developed) from territory B (more developed). Urban centers are present on both side of the border: the urban center of the territory B situated nearer to the border and attract more man-power; its theoretical attraction zone is mostly on the territory B. The real attraction zone covers partly the theoretical attraction zone and extends to the territory A. However, the urban center of territory B has a great role of the dynamism of this border area. The road axes are partly parallel with the borderline, others conduct into the non borderland area, but the border-crossing possibilities are rare. Every object present on the territory B is closer to the international border (typically border is recognized with more fears on the territory A). However, the objects of this map are the typical targets of the first-stage cross-border cooperation projects: amelioration of traffic channels (roads, canals, maybe railroads) and building common capacity of waste-water treatment.

The next level is a filter-border (see Figure 5) with different level of development (territory A is less developed). On the schematic map we can see that the single urban center of territory A is in recession, the population density near the border area is weak. Around the dynamic urban centers in territory B we can observe the modern phenomenon of peri-urbanisation. On the highly developed territory B, two urban centers are present; the more intensive urbanization magnifies the asymmetry effect of the territory. The cross-border shuttle between the two territories is active; in territory A the unemployment – even with the low density of population – is high. Population of the border region of territory A is fixed because of administrative barriers to move into territory B and the lack of jobs in the home country. The new objects of the map are the cross-border shuttles. When the borders are enough open to realize daily flow of working power, these shuttles appear, even covering a 100 km distance.

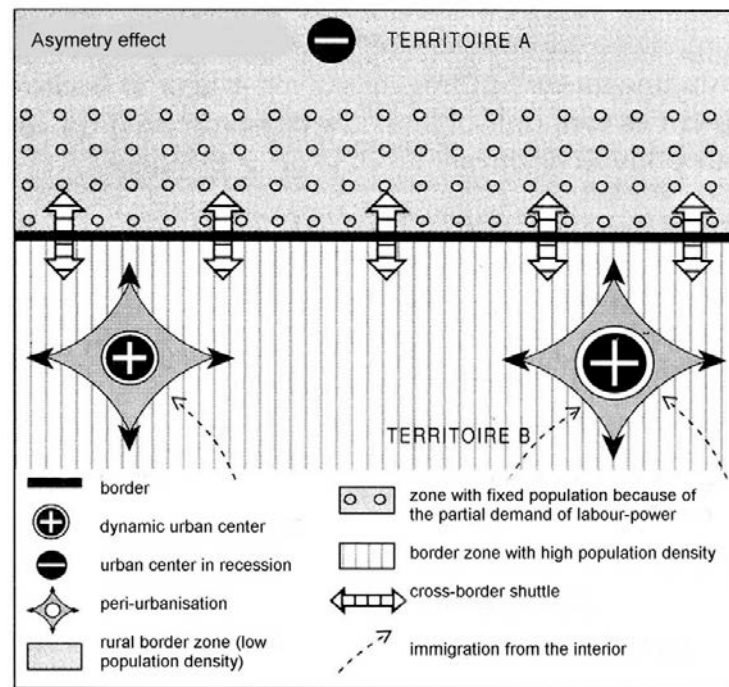


Fig. 5. Asymmetry of border

Source: Renard-Picouet, 1993

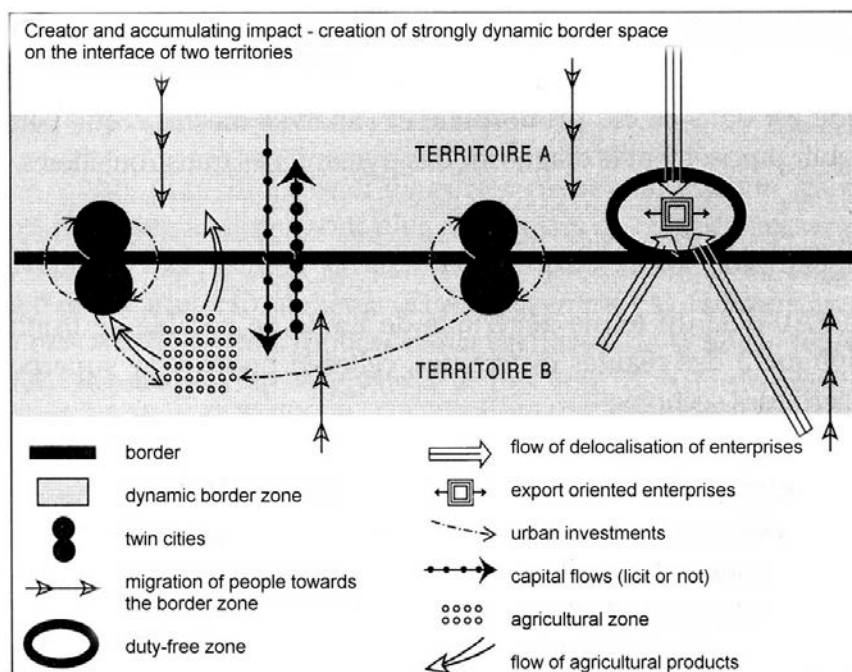


Fig. 6. Strongly dynamic border space

Source: Renard-Picouet, 1993

The third level of cross-border cooperation is shown in Figure 6: a strongly dynamic border space on the interface of two territories. In that case the cities are next to each other in the border zone (classical type of twin cities). The cities are quite dynamic on both side of the border because of the flows of people and capital towards the border zone. This dynamism attract the location of export-oriented enterprises, they are installed in duty free zones. The high density population zone neighbors with an agricultural zone helping the alimentation the population. The flow of agricultural

products concern both side of the border. Level of development is similarly high on both sides of the border, but physical proximity of actors (cities, enterprises) is important in the cooperation. The integration reached the level where investments are bilateral, production is specialized, but balanced. The new objects of the maps are agricultural zones (until this phase, both countries had their own local agriculture), and the duty-free zone with industrial parks. The border should be open to have the possibilities of moving capacities of enterprises into these parks. At this level, the infrastructure is supposed to be complete; the balanced level of employment does not require a large volume of daily commuting.

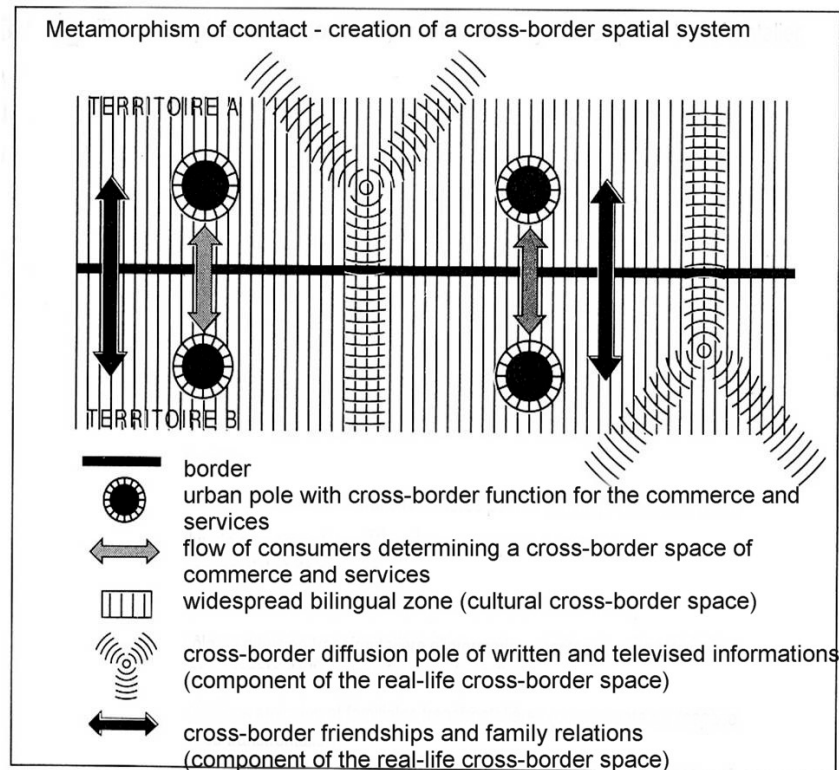


Fig. 7. Metamorphosis of contact

Source: Renard-Picouet, 1993

This is the most integrated territory, where the border lost completely its function. The border such as a landmark is yet present, but from the contact point of view the border is imperceptible. This border zone is a widespread bilingual zone without obstacle before the commerce, the services and the personal contacts. The urban poles are situated in the border area; between them the flow of consumers and services is high. The cross-border diffusion poles assure a good base of cooperation between the territory A and territory B. The family relations and cross-border friendships are also strengthened in that integrated cross-border region. This map is perfectly symmetrical; the most important new elements are the cross-border information sources (supposing bilingual population on both sides of the border). Nowadays, the importance of televised and mainly written information is decreasing, while the role of internet and common web sites are increasing. The communication networks respin the invisible background spatial structure. The vertical lines of the border zone should be replaced by an uneven, apparently random system.

4. CONCLUSION

We can see that only a very high level of social and economic integration can decrease the separation effect of borders. The common language (or perfectly bilingual zone), the fully integrated economic functions and the same living standard are necessary conditions of disappearing of cross-border infrastructure problems. Even in Europe, we can find a few examples, the metropolis of Lille (with a cross-border region in Belgium) and the triborder zone of Luxembourg-Belgium-France. Eastern European border zones deals with problems of first or second phase, having examples of the third phase in the border zones of the ex-Iron Curtain. Future researches can be done on overseas locations with different static and dynamic features.

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